



## Features

- No backlash - mounted directly to potentiometer shaft
- For use with precision potentiometers or other rotating devices up to 30 turns
- Compact size - requires only 25.4 mm diameter panel space
- Available with or without brake



Model H-490 is obsolete. Models [H-22](#) and [H-23](#) are preferred.

- RoHS compliant\*

## H-490 Turns-Counting Dial

### Mechanical and Physical Characteristics

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Number of Turns .....             | 0 to 30                           |
| Dial Divisions.....               | 100 per turn                      |
| Readability - Over 10 Turns ..... | 1 part in 1000                    |
| Torque With Brake Engaged .....   | 350 g-cm (5 oz-in.) minimum       |
| Markings .....                    | White on black background         |
| Locking Brake .....               | Refer to chart below              |
| Weight .....                      | Approximately 7 grams (1/4 oz.)   |
| Set Screws .....                  | UNC-3A 4-40, 2 screws 120 ° apart |
| Set Screw Tightening Torque ..... | 22.59 N-cm (2 lbs.-in.) minimum   |
| Hex Key Size .....                | 0.05 in. hex                      |

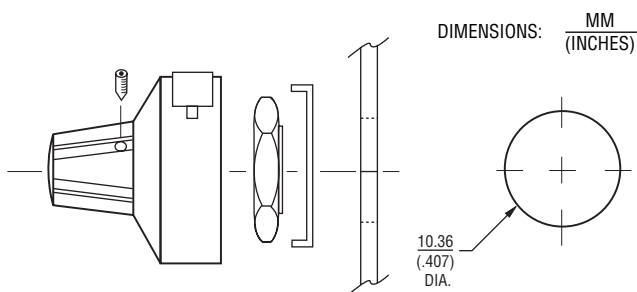
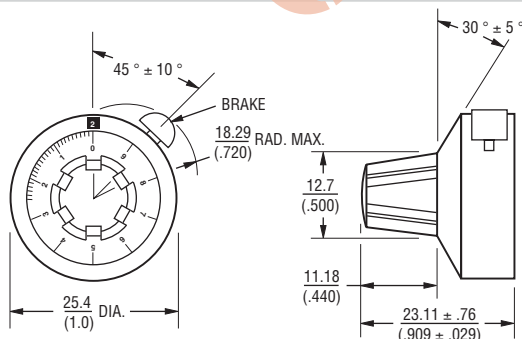
### Shaft and Bushing Requirements

|                                     |                             |
|-------------------------------------|-----------------------------|
| Shaft Diameter Requirements.....    | Refer to chart below        |
| Shaft Extension Beyond Panel .....  | 15.75 mm (0.62 in.) minimum |
|                                     | 21.21 mm (0.83 in.) maximum |
| Bushing Extension Beyond Panel..... | 9.02 mm (0.35 in.) maximum  |

### H-490 MOUNTING INSTRUCTIONS

1. Discard standard mounting nut and lockwasher supplied with the potentiometer; they will not be used.
2. Insert potentiometer in panel.
3. Using parts supplied with dial, position anti-rotation washer against panel. Tangs of washer should stick out from panel.
4. Install mounting nut supplied with dial. Be sure:
  - a. Shoulder on nut engages hold of anti rotation washer.
  - b. Tangs of anti-rotation washer are aligned vertically. This positions the turns-counting window properly.
5. Turn potentiometer shaft counterclockwise to minimum resistance or voltage ratio. This is not necessarily at the end of travel.
6. Loosen set screw in knob of dial assembly. Set dial to "0.00" reading. Slip dial assembly over end of potentiometer shaft.
7. Holding outer ring of dial assembly, engage locating tangs on anti-rotation washer in notches on dial assembly.
8. While holding outer ring, position unit lightly against panel. Uniformly tighten knob set screws to potentiometer shaft with furnished hex wrench.

### Dimensional Drawings



### How To Order

| Part Number | Accepts Shaft Diameter | Fits Bushing Size | Brake | Body Finish  |
|-------------|------------------------|-------------------|-------|--------------|
| H-493-2     | 3.18 mm (.125 in.)     | 6.35 mm-32UNEF-2A | No    | Black        |
| H-494-2     | 3.18 mm (.125 in.)     | 6.35 mm-32UNEF-2A | Yes   | Black        |
| H-491-3     | 6.35 mm (.250 in.)     | 9.53 mm-32UNEF-2A | No    | Satin Chrome |
| H-492-3     | 6.35 mm (.250 in.)     | 9.53 mm-32UNEF-2A | Yes   | Satin Chrome |
| H-493-3     | 6.35 mm (.250 in.)     | 9.53 mm-32UNEF-2A | No    | Black        |
| H-494-3     | 6.35 mm (.250 in.)     | 9.53 mm-32UNEF-2A | Yes   | Black        |
| H-492-2     | 3.18 mm (.125 in.)     | 6.35 mm-32UNEF-2A | Yes   | Satin Chrome |

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\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex. Specifications are subject to change without notice.

Customers should verify actual device performance in their specific applications.